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Editor - Captain L. B. Marshall, MC, USN

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TABLE OF CONTENTS

Circular Letters:

Periston as a Plasma Substitute: There are now available 2 clinically highly satisfactory plasma substitutes, dextran from Sweden and periston from Germany (for dextran as a plasma substitute, see Medical News Letter, Vol. 16, No. 4, dated 8 September 1950).

Periston is a polymerization product developed by Reppe and collaborators and is a 3.5 percent solution of fractionated polyvinyl pyrrolidone (kollidon). The molecular weights used range from 20,000 to 80,000 with a mean of about 50,000. It is chemically inert, has the property of adsorption for dyes and toxins such as those emanating from diphtheria and tetanus organisms, and is readily taken up by the reticulo-endothelial system. It is stable over a wide range of temperatures and presumably can be stored indefinitely. It is relatively cheap, and can be manufactured in large quantities. Its use in Germany over a period of 9 years in the treatment of individual and mass casualties has been attended, in its early use, by only an occasional reaction attributed to pyrogens. In Germany, because of the difficulty in obtaining blood and its derivatives, it has largely replaced plasma and serum as well as analeptics for emergency use. It is to be emphasized that periston is not a blood substitute and is reportedly of greatest value when administered during or immediately following operations and within the critical period up to about 20 hours following injury.

Clinical studies of periston have been made by G. Düttmann and others. In hospitals, patients have received up to 3 liters of the solution over a period of 3 days. Usually, however, not more than 1-1/2 to 2 liters are given. Massive infusions in animal experimentation fill the reticulo-endothelial cells with the colloid which may be excreted subsequently without injury. In man, accumulation of the colloid in storage cells has not been found in the autopsy material studied.

Since 1941 some 500,000 to 750,000 infusions, and more by this time, have been given of 2.5 to 3.5 percent colloid in physiological saline (pH 6.8) with only a rare pyrogenic reaction. It has been given under war conditions in the extremes of temperature found in Russia and Africa. One observer remarked that in 20 years of experience with blood substitutes, no substance had ever been administered with so few unfavorable results. Thousands of war autopsies by trained histopathologists revealed no liver or kidney injury.

It is interesting to note that one observer handled mass casualties resulting from air raids over Essen. From 200 to 300 patients were admitted daily during the progress of the attacks. He separated those patients in poor condition or in shock from those ready for surgical treatment. Five hundred cc. of periston were given routinely to the former group and this apparently constituted the major preoperative restorative. Periston was ordered placed in all first-aid units connected with air raid shelters. Again in this hospital periston has replaced plasma or serum and analeptics.

Another hospital serves a community of about 500,000 individuals in which about 175 accidents occur daily. From 10 to 70 percent of these are serious and about 10 patients daily are shock cases. Here, periston has been administered by the observer. Five hundred cc. of the 3.5 percent solution are given in 15 minutes; by drip infusion not more than 1 liter is given within a period of 2 to 3 hours and from 1.5 to 2 liters in 24 hours accompanied by 1 to 2 liters of saline. Periston has been given during the first 24 hours and blood subsequently, if considered necessary. This same observer has had extensive war experience and in his opinion periston was an effective plasma volume expander. He found that urinary excretion was similar to that following blood or plasma transfusion. Careful pathological examinations and histologic sections were made of the liver and spleen. No storage of the colloid was found.

Attention was called to the adsorption of toxins in vitro and vivo by the colloid as well as dyes and other substances. This adsorption process mades possible the elimination of the colloid-toxin unit by the kidney and has been investigated by Schubert. Some clinical applications with favorable results have been reported in the treatment of diphtheria in children.(This phenomenon requires much more study.)

Clinical experience over a period of 2 years was reported by Hecht and Weese; many thousands of infusions administered after acute loss of blood, various types of shock, collapse after burns, and other intoxications had a successful therapeutic effect. Storage in the reticulo-endothelial system was at no time observed. Blood pressure and pulse were quickly and persistently restored to normal, and many patients became operable and transportable after infusion of periston. After paravenous or intrasternal application no local reaction was observed. Tönnis used kollidon successfully in brain surgery and Klees in gynecology and obstetrics. Eclampsia or pre-eclamptic conditions are contraindications. Treatment of infants following alimentary intoxication was as successful as with plasma. Starvation edema was successfully eliminated. Nephrotic edema was successfully eliminated by periston. A 3.5 percent solution of kollidon added to novocain resulted in prolongation of local anesthesia. A pontocain periston depot in the peridural space resulted in prolonged anesthesia, enabling even amputation of the mammae or the performance of thoracoplasty under spinal anesthesia. (Abstracted from current information by Editor)

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Suggestions for First-Aid Treatment of Casualties from Atomic Bombing: In conjunction with a discussion of first-aid measures in an atomic bombing attack, figures estimating the number and types of casualties to be expected are presented. Based on Hiroshima and Nagasaki experience, it is estimated that with an atomic bomb of the Japanese type 100,000 casualties more or less may be expected. Of these, about 20,000 will be killed outright, 40,000 will be

immediate hospital cases, and 20,000 will be ambulatory casualties. Another 20,000 will not report immediately. Approximately 50,000 people can be expected ultimately to die. It is possible that good medical management could save the lives of 10,000.

Newer types of atomic bombs may well produce larger numbers of casualties, perhaps 50 or 60 percent more. Smaller atomic weapons, guided missiles, shells, and so forth may be used and would give fewer casualties according to their size. After a bombing attack the function of the doctor would be twofold: to render first aid and to engage in casualty sorting or in the recognition and the separation of the more seriously injured for purposes of priority in definitive care. Whether he would do so independently or as a member of a trained civilian-defense team would depend on his particular situation and the extent to which such teams had been organized prior to the attack. This outline of first-aid treatment is designed to serve until civilian-defense organization has progressed to the point where more detailed procedural instructions can be drawn up to replace it. When that time comes supplies of burn dressings, litters, decontamination kits, and record tags for emergency care will also be made available.

High-explosive bombs of the type used in World War II caused 3 types of injuries--blast, physical trauma from falls or from falling debris, and burns. In the bombings of Japan the blast effect, though very great and undoubtedly the cause of many deaths, was rarely seen among survivors. Atomic bombs have substituted radiation injury and radioactive contamination for blast. Thus, first aid in case of atomic attack must be chiefly given for physical trauma, burns and radiation injury, and radioactive contamination.

Physical Trauma. Trauma due to falls or to falling or flying debris will probably always remain, regardless of the type of weapon used, in the forefront of causes of disability among survivors of a bombing attack. It was evident in 70 percent of the survivors of the bombings of Japan. Many of these injuries were contusions and lacerations and of no great importance. They should, however, be treated thoroughly early to avoid any possible complications during the period of later radiation sickness.

Burns. Burns are a more common source of disability after atomic than after high-explosive bombing, and occurred in from 65 to 85 percent of the casualties at Hiroshima and Nagasaki. They are of two types, flash and flame. The flash burn is more superficial than the flame burn, but presents more severe destruction of involved tissue. It is due to the tremendous radiated heat of the bomb and is incurred by those exposed up to 2-1/2 miles from the hypocenter. It is usually readily recognizable because it involves only one side of the patient. Thus, it cannot involve more than 50 percent of the body surface. The flame burn, due to burning buildings or clothing kindled by the heat, is more

penetrating but less severely destructive of involved tissue. Flame burns occurred in 5 percent of the Japanese burn cases. First-aid treatment for both flash burns and flame burns is the same.

Loose and torn clothing and large, easily detachable debris should first be removed from the injured skin, but no vigorous efforts to clean the burned area should be made. A sterile occlusive dressing should be applied with light pressure at an early opportunity. There will be an individual decision here whether the dressing should be applied as a first-aid measure or an hour or two later in a dressing station or hospital facility. It is probable that the availability of such facilities and of the transportation thereto will be of such a low order that it will be more desirable to bring the dressing to the patient than the patient to the dressing. Mobile burn units will undoubtedly be organized to care for this. At present it is recommended that the dressing be undertaken as soon as the doctor can obtain adequate materials, assistants, and leisure time. It must be remembered, however, that the dressing should be a good one, since the avoidance of infection in these patients, all of whom will have had some exposure to radiation, is of paramount importance. Under ideal circumstances the first dressing should not be changed for several days.

The dressing should have as its base a petrolatum or anhydrous lanolin ointment applied on a fine-meshed gauze as an inner layer. Dry gauze and materials that will adhere to the wound, such as absorbent cotton, should be forbidden. Irritating and colored applications and agents forming eschars, such as tannic acid and gentian violet, are to be avoided. Cotton or machinist's waste, however, makes an excellent outer layer of padding to the dressing. This should be wrapped on with roller gauze or elastic bandage at an even, gentle pressure.

The flash burns are exceptionally painful, but the pain is usually relieved by application of the dressing. If this is not effective, a small dose (maximum of 10 mg. and less in the aged) of morphine may be given.

Burn Shock. The treatment of burn shock is not strictly in the province of first aid. Recognition of it for purposes of priority in evacuation is, however, important. It is roughly predictable on the basis of the amount of body area burned. Anyone receiving a burn of more than 20 percent of the body surface should be tagged for treatment of impending burn shock and treated initially by strict rest, which is also important in the treatment of radiation injury.

Pharyngeal Burns. The detection of nasopharyngeal burns by examination for burns of the nasal hairs and hoarseness is of great importance in determination of priority for observation with a possibility of tracheotomy in mind. Such patients are safer and more comfortable in a semirecumbent position, not lying flat.

Radiation Injury and Radioactive Contamination. Radiation injury was present in over 30 percent of the Japanese casualties. There are two sources: immediate direct radiation injury produced by gamma rays from the burst itself, and delayed injury from the effect of contact with radioactive residues of the bomb which fall from the bomb cloud or are spread to the area in dust or water. This second source may also include radioactivity induced in inert substances by neutrons.

The early treatment of radiation cases consists only of recognition of the possibility of radiation sickness from the history of adequate exposure (the limit of serious radiation injury in Japan was about 1 mile from the ground center); provision of complete rest for people dangerously exposed; provision of serial white-cell counts and hemoglobin determinations as measures of severity of exposure; institution of oral antibiotic therapy, preferably with aureomycin, to limit bowel ulceration and hemorrhage during the impending period of leukopenia (rutin may also be advised); and adequate observations for intercurrent disease, especially infections, in the early stages.

Of these principles, rest is the only one that can be strictly considered to be in the province of first aid. First aid may well be regarded, however, as including the process of dealing with contamination from radioactive residues. This covers recognition of contamination, early decontamination of those affected, and avoidance of contamination of those not affected.

Recognition of Contamination. Monitoring devices will be necessary to establish with finality the presence and degree of contamination (See Medical News Letter, Vol. 16, No. 5, p. 2.) A rough prediction can, however, be made from the height of the explosion. That which is most efficient for the destruction of property is from 1,500 to 2,000 feet above the ground. At this height fission products are carried away in the tremendous updrafts forming the mushroom cloud, the extent of ground contamination is negligible, and protective measures will probably not be necessary. If a bomb explodes close to or under the ground or the surface of the water, large amounts of radioactive materials may be distributed for distances of greater than 2 miles. Under such conditions it will be essential to set up zones according to density of radioactivity. Traffic into the most dangerous zones will be eliminated except for essential trained personnel.

Decontamination. People in a radioactive zone should, on evacuation from the zone, remove clothing and wash themselves thoroughly, preferably with a detergent. Such decontamination obviously can be partially undertaken within the zone, provided proved noncontaminated materials and clothing are available for the purpose.

Avoidance of Contamination. External contamination of the body surface is not difficult to avoid when one enters a contaminated area. A "no touch"

technic should be used. To facilitate this, disposable footwear and gloves should be provided. Internal contamination of the body from inhalation or ingestion of fission products is more dangerous. Contaminated food and water supplies, with some exceptions, will only be available for consumption after radioactive survey. Generally speaking, food in intact containers will be safe so long as contamination is not introduced when the container is opened. If mist or dust is present in the contaminated zone people should wear a wet handkerchief or preferably a gas mask.

Casualty Sorting. Since the number of casualties following one atomic explosion is so great, the populace as a whole will obviously undertake responsibility for active service in the disaster. First-aid and rescue training must be nearly universal. The following general principles for casualty sorting are set down as suggestions.

One should first attempt to get an over-all picture of the numbers of casualties and the possible aid available in the area. A few minutes occupied in an initial survey of the situation and the enlisting and organization of available help will often be of more value than the too early concentration on protracted first-aid measures to one badly injured casualty.

One should next tag or otherwise make a record, which will be fastened to the clothing of each patient treated or evacuated. The diagnosis should be specified, lesions that lie beneath dressings described, suspicions of internal injuries recorded so that patients may be held for observation. The location of patient at time of explosion and the suspicion of radiation overdose should also be recorded.

Surgical casualties should be divided into categories with an eye to priority for definitive care. A convenient classification is one modified after Trueta, the highest priority being listed first: (1) Those who need definitive treatment as soon as possible. The group includes patients with severe hemorrhage, open chest wounds, extensive destruction of soft tissues, avulsion of limbs, and penetrating abdominal wounds. (2) Those who need immediate definitive treatment but may wait until the first group has been dealt with. The group includes patients with compound fractures, penetrating wounds of joints, wounds of the face, and burns of more than 20 percent of the body surface. (3) Those who need immediate resuscitation and rest but no operation, at any rate during the first few hours. The group includes patients with severe shock, small penetrating wounds of the chest, and crush injuries. (4) Those who after receiving first aid should be transferred to a center for special treatment. The group includes patients with major injuries to the head, peripheral nerves, and eyes. (5) Those who may be sent home after some form of simple treatment. The group includes patients with contusions, lacerations, sprains, simple fractures of the nonweight-bearing bones, mild cerebral concussion, and minor burns.

Nonhospital cases with potential radiation sickness must be followed carefully in order that antibiotics can be begun as soon as the diagnosis is established. (New England J. Med., 2 November '50, R. H. Warren and J. H. Jackson, Committee on Emergency Medical Service, Massachusetts Med. Society)

Although this article contains no new, startling, or dramatic information on the treatment of such casualties in the event of disaster, it does represent a synthesis of available data. The authors of the Committee on Emergency Medical Service of the Massachusetts Medical Society consider it worthy of publication and the instructions presented to merit the close attention of all physicians. (Ed) (See Medical News Letter, Vol. 16, No. 5, p. 6.)

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Frostbite: An excellent symposium on frostbite by Russian investigators consisting of 16 papers has been published by the Defense Research Board of the Canadian Defense Department. It has been shown that frostbite occurs as a result of the protracted action of low tissue-temperatures, which in most cases, however, do not reach the point of actual freezing. The decisive factor in the production of frostbite is the period of time during which the low tissue-temperatures act. If exposure to very severe cold is prolonged, death from hypothermia results but freezing of the tissues does not occur until after death. Indirect confirmation of this may be seen in the fact that frostbite of the limbs extending higher than the ankle and wrist joints are a statistical non-entity. In a living man actual freezing of the tissues practically never occurs.

Contrary to common belief, the fragility of the erythrocytes is not increased at low temperatures and the changes that occur in the blood are characteristic only of venous stasis. This is to be expected because the blood will tolerate low temperatures down to the freezing point very well, a fact demonstrated by large scale experimental work in connection with preserving blood by refrigeration. Since it is nearly impossible to freeze the tissues of a living animal, freezing of blood in the tissues would not be expected to occur and does not occur.

Unlike burns, not 3 but 4 degrees of frostbite should be distinguished, characterized as follows: (1) erythema with subsequent peeling of the epidermis; (2) blisters with clear serous content, resulting from the necrosis of the whole corium-layer; (3) dense superficial foci of necrosis involving both the corium (derma) and a sub-dermal stratum, or sanguineous blisters over which there are always parts of a necrotic sub-dermal stratum of varying depth showing; and (4) necrosis extending solidly throughout the whole diameter of the digits or extremities and involving the bone, with subsequent mummification and sloughing thereof.

The practical significance of the researches on the "brittleness" of frostbitten extremities resides in the fact that the old notions must inevitably militate

against the use of massage in frostbite and of artificial respiration in cases of exposure to cold. The most recent Russian manual of field surgery recommends both of these procedures and discounts the current notion of brittleness of the extremities in these cases.

It has been a widespread and generally accepted rule-of-thumb that frostbitten limbs should be warmed slowly and gradually. Although in every text book you may read that rapid rewarming of frostbitten extremities causes gangrene in them, Russian observers have concluded that: (1) the rule of slow and gradual rewarming of frostbitten extremities is based on the preconceived idea of frostbite as a state of actual freezing; (2) the literature contains no trustworthy descriptions of concrete cases of frostbite treatment in which a departure from the accepted rule-of-thumb produced adverse results; (3) it is almost impossible to warm a frostbitten member rapidly; and (4) the more rapidly a frostbitten extremity is warmed the less necrotic and degenerative symptoms develop in the tissues after warming.

Some isolated observations on the rapid warming of the frostbitten extremities of human beings are available. The results obtained are encouraging and never in any case indicate an adverse influence on the subsequent course of the involvement. By "rapid" warming is meant the combined use of warm baths and massage. The temperature of the baths should never be higher than 37° C., because overheating of the tissues is dangerous. In order to speed up the rewarming process, intravenous injections of a 10 percent solution of calcium chloride are beneficial. Five cc. of this solution are injected every 10 minutes until 3 injections have been given. Patients so treated experience a sensation of rewarming that coincides with an objectively observable peripheral hyperemia.

For the purpose of urgent first aid in hypothermia the patient should be placed in warm surroundings, given energetic and prolonged massage, given calcium chloride intravenously, and given hot drinks by mouth. In massaging, excessive traumatization of the skin must be avoided. This lessens the chances of cutaneous infection. After wiping the skin with alcohol swabs the patient should be wrapped in sterile towel, pulling strongly on the edges so as to bring it tightly into contact with his body. This is followed by energetic massage over the towel with the open palm. This method has great advantages even over massage with the hand in a sterile glove, since it is milder, easier on the skin, develops a great amount of heat, and gives the maximum protection against infection. Massage should not be given when several hours have elapsed after the occurrence of frostbite, because by that time inflammatory symptoms will have appeared and the injured tissues are then in need of absolute rest, plus warming.

In first degree frostbite the initial treatment may be followed by simple irrigation with a 5 percent tannic acid alcohol solution or by painting the area with a 2 percent solution of brilliant green; also with 10 or 15 minute sunlamp

exposures in the first 3 or 4 days, because this has a mild analgesic effect and promotes the rapid restoration of circulation. (Mil. Surgeon, November '50, Col. W. G. Brandstadt, MC, USA)

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The Patella. Its Importance in Derangement of the Knee: This paper is based upon a study of 18 cases in which the patella was considered to be the primary factor in knee derangement. Twelve were due to chondromalacia, and 6 to hypertrophic changes.

The patella is an important bone which plays a prominent part in many derangements of the knee. Some writers go so far as to say that the knee functions just as well without a patella. However, in a recent survey by Scott of 196 cases of fracture of the patella, in 101 of which the patella had been excised, only 5 percent of the patients believed that the knee was normal. When one considers the size and anatomical arrangement of the patella in its relationship to the femoral condyles, it is only fair to assume that this bone does serve definite functions, both as a protection to the knee joint itself, and as an important part in the extensor apparatus of the leg.

At birth, the patella is composed of hyaline cartilage, and usually develops from a primary center of ossification when the child is from 2 to 5 years; there is full replacement of cartilage by bone at the age of 17 to 18 years. The relatively thick articular cartilage over the patella, as compared to that of the femoral condyle, is important, and may be a factor in some of the disabilities here discussed. The cartilaginous surface is divided into two facets by a vertical ridge. The lateral facet is wider and deeper than the medial one, corresponding to the difference in size and contour of the articular areas of the femoral condyles. It has been shown that, after 15 years of age, every individual may show some evidence of degeneration in the knee joint, and that the superficial articular-cartilage layer of the patella is the area of earliest change.

Chondromalacia. All stages of the aging or disintegrating process of the patella may be looked upon as variations of chondromalacia. This term is used, however, for the more rapid fragmentation of the thick hyaline-cartilage layer in the young adult. This may appear as localized, shaggy areas of softening and fragmentation of the cartilage, or as destruction of the entire articular surface of the patella, with secondary subchondral-bone proliferation.

In 1945, the authors reported that the incidence of chondromalacia as the primary cause of internal derangement of the knee was 7 percent of 124 consecutive knee arthrotomies. Other surgeons have reported the incidence as high as 18 percent. The relatively common occurrence suggests that the condition is not rare in the young adult. It is frequently overlooked for the following reasons:

1. While the history is suggestive of internal derangement of the knee, the physical examination is inconsistent, largely because of the difficulty in examining the articular surface of the patella.
2. Roentgenograms of the patella usually show normal findings.
3. At operation, the patella is frequently not explored adequately.

In the authors' series of 12 cases, symptoms were precipitated by recurrent strains of the knee in 5 instances and by repeated direct blows on the patella in 6; in 1 case, there was no definite history of injury. The symptoms consist of intermittent pain over the anterior aspect of the knee and a momentary sensation of catching, followed by slight stiffness and moderate swelling of the joint, atrophy of the thigh, and tenderness along the medial border and the articular surface of the patella. In each of the 12 cases in which operation was performed, the x-rays revealed a normal patella. Osseous loose bodies were seen in the joint in 3 cases and osteochondritis of the femoral condyles was evident in 3.

The form of treatment to be employed is determined by the severity and duration of symptoms in the individual case. If the symptoms are mild and cause only occasional disability, even though the diagnosis of chondromalacia may be reasonably certain, the patient should be followed carefully, given exercises to maintain strength of the quadriceps muscles, and cautioned to avoid injury to the knee. For the patient with moderately severe symptoms, with locking or frequent catching of the knee followed by pain, swelling, and stiffness, operation is probably indicated.

The knee should be explored through a parapatellar incision and, if the lesion of disintegrated cartilage is of moderate size, complete excision of the area should be carried down to bone. A diligent search should be made for loose cartilaginous bodies. If the area of chondromalacia covers essentially the entire articular surface of the patella, or if there is marked eburnation and thickening of the patella (the final stage of the process), one of two operative procedures is indicated--either a patellaplasty or complete removal of the patella.

The Hypertrophic Patella. In the older adult, the patella may also be a cause of knee derangement, although there are usually associated changes in the condyles, in the menisci, and in the synovial membrane. The hypertrophy may develop following chondromalacia of the patella; it may come after injury, such as fracture or localized trauma; or it may be a part of the gradual aging process of the knee joint.

The history is that of recurrent, rather prolonged, pain in the knee, with moderate remission of symptoms over a period of weeks or months, only to be followed by recurrences, precipitated by unusual walking or standing or by additional acute injury to the knee. There may be swelling, pain, and generalized aching throughout the knee, particularly discomfort on flexion and extension.

Examination usually reveals generalized thickening of the synovial lining, broadening and thickening of the patella, and associated hypertrophic changes along the joint lines. Motion is practically always markedly restricted. Pain is sometimes relieved by rest and local applications of heat, but is made worse by activity.

Characteristic x-ray findings are a markedly thickened patella, with hypertrophic changes at the patellar borders, and frequently associated changes throughout the knee joint, with or without loose-body formation. Many of these patients can be improved by conservative means, such as external support, heat, and muscle exercises; but in some cases these measures are not adequate, and operative treatment is indicated.

In order to preserve the two functions of the patella (protection of the femoral condyles and maintenance of efficiency in extension of the knee), preservation of at least a portion of the patella is believed desirable, and total excision is to be avoided, if possible. In the authors' experience, the less raw surface left over the condyles in the older group of patients, the better the postoperative response. Therefore, they have not removed hypertrophic spurs from the femoral or tibial condyles.

Since one of the most important problems in rehabilitation of these patients is to restore strength in the quadriceps and extension of the knee, the patient is encouraged to set the quadriceps on the 2d postoperative day. Usually by the 3d or 4th day, quadriceps control is fairly well restored. If a plaster-cylinder support is used, it is usually removed on the 7th or 8th day and resistance exercises are begun both for the quadriceps and the hamstrings, in an effort to regain motion in flexion as well as in extension. On the 7th to 10th day, depending upon progress, walking is begun. At first a walker is used, and then the patient is instructed in the use of crutches. These are continued for from 6 to 8 weeks, and resistance exercises are done for 6 months or more. These patients continue to improve for at least a year.

All but 2 of the cases of hypertrophy of the patella in which patellaplasty was performed have been followed for over 2 years; of these 2, one was followed for 8 months and 1 for 15 months. In 4 knees the results have been evaluated as excellent (complete extension and appreciable gain in flexion, satisfactory use of the knee, and no complaints); 1 knee was considered a good result (complete extension and appreciable gain in flexion, good use of the knee, but mild symptoms of fatigue and not quite normal quadriceps power); and 1 knee was judged a poor result (persistent pain, disability, and appreciable loss of motion).

The one important factor in the successful cases was the ability of the patient to regain active extension of the knee. This may come slowly, particularly if flexion deformity has been of long standing. In the preoperative evaluation of

the case, care should be exercised in selecting the patient who is willing to work to regain a useful knee. Any evidence of a rheumatoid state should be noted; the authors believe that patellaplasty is not indicated in rheumatoid arthritis. (J. Bone & Joint Surg., July '50, E. F. Cave and C. R. Rowe)

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Acute Barbiturate Poisoning. Analysis and Evaluation of Current Therapy: In 88 cases of acute human barbiturate poisoning picrotoxin exerted a definite life-saving action. On the other hand, the authors feel there is no conclusive evidence to indicate that amphetamine, coramine, disodium succinate, and caffeine exert a life-saving action in barbiturate poisoning.

Many cases of human barbiturate poisoning treated with analeptics do not require specific treatment and will recover with adequate symptomatic care. To differentiate between patients requiring energetic picrotoxin or metrazol medication and patients not requiring analeptic therapy, it is advised that an orientation dose (5 cc. of 10 percent of metrazol solution) be administered intravenously. If the patient responds favorably to metrazol, only symptomatic care is indicated. Central stimulants are contraindicated in comas produced by central nervous system depressions other than those caused by barbiturates or other aliphatic hypnotics.

The objection that analeptics unduly stimulate an already depressed central nervous system is regarded as not well founded, since aliphatic hypnotics protect against multiple fatal doses of the analeptics. The other objection that these stimulants excessively increase the oxygen demand of the central nervous system and thus cause an additive depression is also regarded as untenable.

The average fatal doses for humans currently quoted in the literature are thought to be far too low. A better approximation of the average fatal dose may be derived by comparing the semi-anesthetic or anesthetic dose of various barbiturates in experimental animals and humans. It is pointed out, however, that the knowledge of the oral LD_{50} for humans of the various barbiturates is important only for the statistical evaluation of the antidotes. Once the necessity for an effective antidote is established, a patient receiving an LD_1 of a given barbiturate may require the same type of energetic treatment as one ingesting an LD_{99}. (Am. J. M. Sc., November '50, T. Koppanyi and J. F. Fazekas)

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Hysterosalpingography. / Its Dangers and Their Prevention: The first step in avoiding dangerous complications of hysterosalpingography is to reduce the incidence of its use by recognizing that it is an elective, not a routine, procedure to be done only on actual indications, and too dangerous to use as a routine substitute for tubal insufflation. It should be restricted to cases with evidence of

tubal obstruction previously demonstrated by tubal insufflation, or to aid in the diagnosis of suspended small intra-uterine polyps or other tumors in connection with sterility studies. Occasional other indications are cited below.

The second essential precaution is to avoid damage to the integrity of the tissues by preliminary dilatation of the cervix, curettage, or by any other than the most cautious use of screw-threaded cannula tips. Smooth metal or rubber tips are definitely preferable. Undue force or pressure in introducing the opaque medium into an undamaged uterus may be similarly dangerous. Blood vessels can be forced open and obstructed tubes ruptured, and to disregard a patient's complaint of excessive pain is to be callous and indifferent to such dangers. This is only one of the reasons why an anesthetic agent should not be used either for hysterosalpingography or for simple insufflations.

The third essential precaution to reduce the incidence of accidents is to use radiopaque media which irritate to the least possible degree, and are not retained as unabsorbable foreign bodies after their injection. Since 1925, iodized poppyseed oil (commercially named lipiodol) has been widely used.

To discredit the important role that has been played by iodized oil in developing medical knowledge of uterotubal functions and in the diagnosis of many pathologic conditions would be unfair. But after its use in many thousands of cases, reports of unfavorable reactions and complications began to appear in the literature. These in their more severe form were oil embolism, peritonitis, and less grave but still serious complications, such as acute salpingitis, chills, fever, jaundice, pelvic abscess, encapsulation of iodized oil with foreign body reaction, and caseous degeneration of the tubes. Ample evidence was presented showing that oil remains in the pelvis for years. It may be eventually absorbed, though much too slowly. The iodine apparently disappears first as indicated by several observers who found globules of iodine-free oil in the pelvis a year or more after injection. It is believed that the oil is gradually broken down into fatty acid and is then slowly absorbed.

The tissue reaction that occurs from iodized oil varies from none to severe sudden inflammatory reaction. Rabbiner mentions a case of fulminating peritonitis with death of the patient 24 hours after injection. This was in all probability due to a bacterial invasion but it is often difficult to determine whether immediate reaction is due to infection or extreme sensitivity to the medium. We know that iodized oil has little or no bactericidal action.

Reichle and Rottger reported 19 cases in which they believed injury followed the injection of iodized oil. Four patients developed granulomatous inflammation of the tubes with irreparable damage while the others developed a peculiar type of tubal inflammation characterized by oil deposits. They consider this inflammatory process more likely to occur in cases of tubal occlusion where the oil is held in the tubes over a long period of time.

Schultze reported 200 laparotomies done from 1 to 60 days after salpingography. In every case he found a residue of the oil in the form of a film over the pelvic peritoneum and in the folds of the abdominal peritoneum. There were no adhesions, but in 7 cases there were yellowish plaques with evidence of fresh tissue changes on the posterior surface of the uterus, broad ligament, and in folds of the abdominal peritoneum.

Lash performed a laparotomy on a patient 22 months after salpingography and found dense adhesions from the omentum to the parietal peritoneum and to the pelvic organs. There were several cystic masses containing a clear, amber, oily fluid and foreign body giant cells were present. It was interesting to note that a successful pregnancy had occurred in the interim between the salpingography and the laparotomy.

Oil trapped in an occluded tube is retained almost indefinitely and often dooms the tube to permanent occlusion. Rubin mentions the artificial production of tubal occlusion through the inflammatory reaction to iodized oil.

While there are many observers who have had cases in which iodized oil was intravasated into the venous system and caused only mild symptoms, there are enough who have had fatalities result from oil emboli to cause concern over this risk from such a nonabsorbable medium. Symptoms from intravasated oil may be negligible, or they may be mild pain in the chest, coughing of blood-stained sputum, chills, fever, or shock. Occasionally there is sudden death. X-ray will often show a pulmonary angiogram; the shadow disappears in 3 to 4 days associated with heavy albuminuria and hematuria. In the majority of cases in which oil emboli have occurred, the injections have been made within 5 days after the cessation of the menstrual flow while vessels are still open. This, of course, is bad timing, but intravasation has occurred at all stages of the menstrual cycle.

Following an accident in 1937 in which a patient developed an acutely inflamed pelvic mass following hysterosalpingography with iodized oil, the authors started on a course of investigation which led to the development of a nonoily radiopaque medium with a viscosity deliberately made identical with that of lipiodol at body temperature. It is skiodan (iodomethanesulfonate) made appropriately viscid by the addition of acacia. Extensive tests at that time showed skiodan acacia to be nonirritating and rapidly absorbed. X-ray shows that this medium disappears from view after less than 1 hour. The skiodan is excreted by the kidneys and the acacia by the liver and intestinal tract, all trace of them having disappeared after 72 hours.

Skiodan acacia solution is prepared commercially in 10 cc. vials and after 10 years of its use there has not to the authors' knowledge been a single fatality or serious accident reported. Colleagues have told of exceptional instances where patients became suddenly faint on the table and these may have been emboli,

though not fatal. It is logical to expect less serious damage when this does occur with a rapidly absorbed medium than with a nonabsorbable one. Moreover, acacia solution has been deliberately employed in the past for intravenous injection for shock with no thought of emboli; its possible embolic action is therefore doubted.

Skiodan acacia solution has been found to have all the advantages of iodized oil without the danger of oil emboli or tissue reaction. The authors believe that iodized oil has no place in the field of hysterosalpingography. Subsequently, in 1941, Rubin developed another radiopaque medium, named viscorayopaque, with properties similar to skiodan acacia solution. It has one notable disadvantage, however, in being irritating to the peritoneum and causing considerable discomfort and pain, presumably from the alcohol it contains, when it spills from the tubes into the peritoneal cavity.

Faulty technic of hysterosalpingography can result in dangers to the patient. The most common error is made in performing the test too soon after the menstrual flow or after curettage. At least 5 days, preferably 7, should elapse after the last day of the menstrual flow before injection of any opaque medium. After curettage it is wise to wait until after the next regular menstrual period before attempting the test, and dangerous not to wait. Disregard for these safety factors exposes the patient to unnecessary risks. (Postgrad Med., November '50, J. L. Royals et al.)

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Magnet Extraction of Foreign Bodies: The removal of foreign bodies by means of a magnet is not a new procedure, being first described by de Roaldes in 1900. A comprehensive analysis of the method was published by Chevalier Jackson in 1905. The only addition that has been made to the technic is the use of the Alnico magnet.

There are 2 types of magnet: the permanent magnet which retains for an indefinite period its magnetic force and the electromagnet by which a magnetic field can be created by the passage of an electric current and the field broken when the electric current is shut off. The permanent-type magnet was improved in 1940 by physicists, who combined iron, cobalt, nickel, and aluminum. This Alnico magnet has a long life and coercive force much greater than was found in the old type permanent magnet, and has found wide usefulness in industry. Because of its great coercive force and its small size in relation to this magnetic force, it has been found suitable for use in the limited spaces of the air and food passages.

In planning for the removal of metallic foreign bodies of the air and food passages, a duplicate of the foreign body should be obtained and studied, together with x-ray films of the organs involved, in order to test a like object to

determine if the foreign body is magnetizable. In a case of a metallic foreign body of the air or food passages, the Berman Locater, if passed over the area adjacent to the foreign body,will respond with a signal if the object is magnetizable.

Foreign bodies of the air passages are usually approached by the more conventional method of forceps removal. A small number of cylindrical foreign bodies such as straight pins, snare wire, and bobby pins are aspirated into the finer divisions of the bronchial tree beyond the point where they can be approached by forceps. In such cases, an Alnico magnet attached to the end of a rigid rod as planned by Holinger, or the vertebrated type described by Jackson, which permits entrance to the second division of the bronchi, can be brought in contact with the foreign body under fluoroscopic guidance and be removed. An understanding of the segmental orifices and the relation of the bronchopulmonary segments helps to simplify the removal of foreign bodies from the finer divisions of the bronchi by means of the biplane fluoroscope and the permanent magnet. A recent improvement in the biplane fluoroscope has made use of two tubes with one screen to give a stereopticon effect, which makes the fluoroscope more effective in the problem of foreign bodies in the deeper recesses of the bronchial tree.

The magnet has been successfully used to remove metallic foreign bodies from the duodenum, as well as the stomach, and could be used in the removal of magnetizable foreign bodies from the entire tract. It is not always true that any object that can pass the cardia and enter the stomach will pass the pyloric sphincter. Foreign bodies because of size, irregular shape, or objects having sharp points, may remain in the stomach for a long period. The majority of gastric foreign bodies are metallic and many are ferromagnetic. Such objects usually occur in children. After a duplicate of the foreign body is obtained, and it is determined that the object is magnetizable, an x-ray study of the abdomen is carried out, using a carbonated beverage which gives a more satisfactory outline of the stomach than do barium and other opaque media. Following this, the magnet is inserted into the stomach under fluoroscopic control. Therefore, explosive anesthetics are not used. Under intravenous pentothal anesthesia, the esophagus is exposed with a speculum and the magnet, attached to a Levin tube, is guided by forceps to the lower esophagus or stomach. A piano wire stylet in the tube permits control of the magnet. Under this control, the magnet will, in a few minutes, make contact with the foreign body and can be withdrawn. Under pentothal anesthesia, the foreign body is not stripped off at the cardia or cricopharyngeus. Since the entire procedure is under fluoroscopic control, one is prepared to recover with forceps the foreign body if it loses contact with the magnet during the removal. No technical difficulties are presented with this method,and it works. Tucker reports success in removing such objects with his magnet-tipped gastroscopic forceps, a method found technically difficult by many endoscopists.

Many foreign bodies entering the stomach remain there for only a few hours and are then found to have passed the pylorus. In infants and children such a

foreign body may have difficulty in passing through the duodenum, owing to its turnings and angles. An additional barrier in this area is the ligament of Trietz. A foreign body trapped in the turns of the duodenum presents a major surgical problem, since the surgeon finds it difficult after the abdomen has been opened to locate the foreign body in the thick-walled retroperitoneal duodenum. It is technically difficult both to incise this part of the duodenum and to suture it. In such cases, the endoscopist is frequently able to remove the foreign body ferromagnetically.

Current routine use of Levin, Cantor, and Miller-Abbott tubes has shown the feasibility of intubing the entire gastrointestinal tract, as well as indicating the rate of speed with which the tube advances and the usual points of obstruction. The procedure followed in magnet removal of duodenal foreign bodies is similar to that used in gastric foreign bodies. The magnet attached to a Cantor tube is placed in the stomach with forceps under fluoroscopic control, while the patient is under pentothal anesthesia. The magnet will have passed on to the duodenum in from 4 to 6 hours and will then advance rapidly through the duodenum. Because of the angulations of the duodenum, the Alnico magnet, which is 3.5 cm. in length, may be obstructed at the same point as the foreign body but will have made contact. When contact has been confirmed by fluoroscopic examination, the tube, magnet, and foreign body are withdrawn.

The use of a permanent magnet of the Alnico type for the removal of metallic foreign bodies has the major drawback that a foreign body attached to it cannot be detached, nor can its presenting part be altered. This objection has been overcome by the use of an electromagnet, and for this Penta has devised an ingenious method of attaching a specially wound electromagnet to a plastic tube and connected to a 6-volt series of batteries. By use of this device, the magnetic foreign body in the stomach in contact with the electromagnet can be moved, after contact, to various parts of the stomach until a relationship of magnet to foreign body favorable to removal is achieved. (Ann. Otol., Rhin. & Laryng., September '50, E. J. Whalen)

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Granuloma Resulting from the Use of Talc in Orthopaedic Surgery: The fact that talcum powder, accidentally implanted in the peritoneal cavity from the surface or interior of rubber gloves during an operation, may be the cause of troublesome or even fatal complications is now widely known by abdominal surgeons. However, this may not be true of orthopedic surgeons. Seelig, Verda, and Kidd have stated that the dry-glove technic was in use for about 25 years before the evils of talc were discovered. It has taken about 15 additional years for the knowledge that talc is an important operating-room hazard to become generally recognized by abdominal surgeons.

The fact that talc may cause postoperative complications in other than abdominal wounds was first brought to the authors' attention in March 1947 by the surgical pathologist, reporting his findings on some tissue which had been excised in the belief that they were dealing with local recurrence of fibrosarcoma of the forearm. Several months later, another patient, who had had an unsuccessful operation for the removal of a protruding intervertebral disc, returned after a second disc operation with 2 draining sinuses in his back. The sinuses were excised; the wound was closed and healed satisfactorily. These sinuses were diagnosed as talc granuloma. The authors have been able to identify 3 additional cases of talc granuloma as being the cause of readmission and reoperation on the Orthopedic Service at the Barnes Hospital during the year 1947.

In an effort to learn more about postoperative wound infections, Weed and Groves examined 35,763 gloves which had been used in 4,549 operations over a period of 20 months. They found that 1 glove or more was torn in 74.4 percent of the operations, and that 22.6 percent of the gloves were torn. Seelig estimated that a finger of a carelessly prepared glove might contain from 50 to 100 mg. of talcum powder, so it is easy to understand why the operative wound is contaminated with the powder.

Seelig, Verda, and Kidd recommended the use of cream of tartar (potassium bitartrate) as a substitute for talcum powder in the operating room and also experimented with starch, but found that this gelled on autoclaving. The cream of tartar did not cause any reaction in the tissues, but it was expensive and shortened the life of the gloves. Recently, efforts to modify starch powder in such a manner that it can be autoclaved without losing its powdering qualities have been successful. Lee and Lehman and MacQuiddy and Tollman have shown experimentally that a corn-starch powder is readily absorbed in the tissues; it does not cause intestinal adhesions or granulomatous lesions, nor does it interfere with the healing of operative wounds. They concluded that it is a safe replacement for talc for surgical and other purposes.

After becoming aware of the dangers, the authors continued to use talc in the operating room for lack of a satisfactory substitute, but these precautions have been adopted:

1. Nurses are cautioned not to leave excess talc in the fingers of gloves.
2. Gloves and a small shaker of talc are placed on a table near the door of the operating room, well away from the operative field and from the instrument table and dressing tables.
3. Nurses are instructed to use as little powder as possible in powdering the hands and to avoid scattering the powder in the air.
4. A splash basin is placed next to the glove table. The surgeon and nurse wash their gloves after putting them on and dry them with a sponge, which is discarded. This washing is repeated each time the nurse returns to the glove table.

5. After the operation is finished, the wound is washed thoroughly with a saturated aqueous solution of sulfanilamide before it is closed.

The authors realize, with Seelig, that talc spreads in the air and that some is left on and in the gloves in spite of the precautions just described, but they used talc under these conditions for over a year without recognizing a single case of talc granuloma, a sinus, or a failure of wound healing which had been caused by talc. They are now using a starch powder. (J. Bone & Joint Surg., October '50, J. A. Key and R. H. Ramsey)

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Mercumatilin (Cumertilin), A New Mercurial Diuretic for the Treatment of Congestive Heart Failure: On the basis of reported pharmacologic and clinical data on a new coumarin-mercurial diuretic, mercumatilin (Cumertilin), this preparation was included in a general study of mercurial diuretics. While the value and use of mercurial diuretics for the treatment of advanced congestive heart failure have been thoroughly established, controlled evaluation of the various preparations useful for this purpose is necessary.

Chemically, mercumatilin is 8-(2-methoxy-3′-hydroxy mercuri-propyl)-coumarin-3-carboxylic acid-theophylline. It is a theophylline salt, with each cubic centimeter of mercumatilin containing approximately 132 mg. of the compound, of which 93 mg. is mercumallylic acid equivalent to approximately 39 mg. of mercury. The theophylline content is approximately 50 mg. per cc., of which 11 mg. is excess theophylline. The solution of the sodium salt is adjusted to a pH of approximately 7.3 and appears to be stable.

The diuretic effectiveness and safety of the new mercurial was determined in comparison with meralluride (Mercuhydrin), chosen because it is the one commonly used for intramuscular administration. Determinations were made of the following data for both diuretics in comparable groups of patients: (1) the predictability of obtaining a satisfactory diuresis, i.e., weight loss of 3 pounds or more of edema fluid over a period of 48 hours when 2 cc. of the preparations were administered intramuscularly, (2) the degree of diuresis, (3) the local tolerance and degree of irritation at the site of intramuscular injections, and (4) evidence of systemic toxicity including idiosyncrasy and kidney irritation.

A total of 28 patients with the usual organic heart diseases and varying degrees of congestive heart failure comprised this investigation. Twenty patients received mercumatilin for 44 trials, and 14 patients received meralluride for 41 trials. Five patients were observed for both diuretics. All patients were in chronic congestive heart failure, and most had been observed for periods of weeks or months before they were included in the investigation. Since all patients were bedridden, they had already achieved the maximum effects of complete physical rest. All patients, although digitalized and receiving the maximum

daily tolerated dose of a digitalis preparation as maintenance, continued to have accumulation and persistence of edema. The daily maintenance dose, however, was discontinued in 5 patients prior to administration of the mercurial diuretic because of adjustment of dosage or the occurrence of digitalis toxicity. The diuretic effectiveness of mercumatilin and meralluride was observed without concomitant administration of ammonium chloride in 21 out of the 44 trials and 14 out of 41 trials, respectively.

In all instances the diuretics were administered intramuscularly in the dosage of 2 cc. at about the same time in the morning. The patients were weighed daily. Repeated injections of a mercurial were given only if the weight curve had achieved a constant level or indicated an accumulation of edema fluid. Frequent urine examinations were performed during the period of observation. A diuretic response was considered to be effective only if the patient lost at least 3 pounds (1.3 Kg.) of edema fluid over a period of 48 hours. In the 5 patients who received both diuretics, the degree of congestive heart failure was approximately the same at the time the comparison was made.

It was found that the predictability of obtaining a satisfactory diuresis with mercumatilin was found to be 59.1 percent of 44 trials in 20 patients as compared to 58.5 percent of 41 trials for 14 patients with meralluride. Preliminary data suggest that the concomitant administration of acidifying salts is not as essential for a satisfactory diuresis with the use of mercumatilin as with the use of meralluride and other mercurial diuretics.

It is concluded that mercumatilin is a safe and effective mercurial diuretic which is well tolerated upon intramuscular injections. (Am. Heart J., November '50, O. A. Rose et al.)

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The Preservation of Arterial Segments by the Freeze-Drying Method: The authors are seeking methods whereby vascular segments can be stored in a relatively simple manner for long periods of time and can be used as satisfactory vessel grafts. It would then be possible for many hospitals or military establishments to keep on hand a supply of vessels which can be used when the need arises.

Freeze-drying, or lyophilization, was chosen for study because such treatment would allow these vessels to be stored at room temperature for indefinite periods of time. Segments of femoral arteries and aortas from 2 to 10 cm. long were removed from donor dogs. The vessels were placed in sterile jars and placed in a deep freeze for 24 hours. The vessels were then placed in a lyophilizer, dried at a temperature of -15 to -25° C. and kept under vacuum (0.001 mm.) from 72 to 96 hours, removed, and placed in sealed jars. They were kept at room temperature until time of transplantation.

Lyophilized vessels were implanted in two groups of dogs; in one group, grafts were implanted into femoral arteries and in the other into abdominal aortas between the renal and inferior mesenteric arteries. The vessels were hydrated with physiological saline before implantation.

Vascular channels of satisfactory size resulted in all experiments. Grafts have been studied from 7 days to 3 months after implantation. These vessels seem capable of withstanding arterial pressure and resemble homografts in all respects. There is little thrombus formation. In animals observed, firm union could always be demonstrated between the graft and the host.

From these preliminary experiments, it is believed that lyophilized vessels may be used in human subjects if circumstances demand the immediate bridging of arterial defects. They seem to stand up well and seem ideal for field use in military establishments and in hospitals where blood vessel banks are not maintained. This method of preservation may be applicable to other tissues suitable for transplantation. (Naval Medical Research Institute, NNMC, Bethesda, Md., Proj. No. NM 007 081.10.02, 19 June '50, A. G. Marrangoni and L. P. Cecchini)

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Rheumatic Fever in the Navy: This report attempts, by analysis of the incidence of rheumatic fever and rheumatic heart disease in the Navy for the years 1940 through 1946, to indicate the magnitude of the problem posed by rheumatic fever to the Navy during World War II and to review the circumstances of its occurrence. By analysis of the records of 1917 consecutive patients with initial or recurrent attacks of rheumatic fever who had been admitted to the U. S. Naval Hospital, Dublin, Georgia, during 1945 and 1946, information was obtained concerning the demographic, epidemiological, clinical, and laboratory factors which seemed to be of importance. The incidence and nature of rheumatic heart disease in these patients were particularly analyzed and the results compared with the reported findings in naval personnel by other authors and the experience in civilian populations.

Rheumatic fever and rheumatic heart disease were responsible for the loss of over 4 million man days from duty and the invaliding from service during World War II of over 13,800 men, most of whom had been in the Navy less than a year. The occurrence of rheumatic fever in the Navy was particularly related to a pre-service history of attacks of this disease, occurring over 13 times more often in those with a past history than in those who had not had rheumatic fever prior to entry into the Navy. Twenty-two percent of the attacks of rheumatic fever occurred in 2 percent of the naval population and there seems to be adequate evidence for the exclusion of individuals with a past history of this disease from the naval service, at least during times of mobilization when streptococcal diseases of the respiratory tract are epidemic.

Evidence for a definite diagnosis of rheumatic heart disease was found in 11 percent of the cases at the time of disposition from the hospital. In 7 percent of the cases, this followed the observed attack of rheumatic fever. An additional 13 percent of the patients were classified as having "possible heart disease" on the basis of a residual apical systolic murmur. There was a definite and significant relationship between both definite and possible heart disease and a past history of attacks of rheumatic fever either before or after entering the naval service. (Naval Medical Research Unit No. 4, AdCom, USNTC, Great Lakes, Ill., Proj. No. NM 005 051.04.03 (formerly NM 007 029), 1 November '50, and Division of Medical Statistics, BuMed.)

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Papillomas of the Larynx, Trachea and Bronchi. Report of Case: Papillomas are a relatively common lesion in the larynx. Occasionally, papillomas will involve the trachea in addition to the larynx but simultaneous occurrence of papillomas of the larynx, trachea, and bronchi is rare. The authors have reviewed the literature and report an additional case of multiple papillomas of the larynx, trachea, and bronchi in a patient observed since 1925 when he was 22 years old.

In 1925 the patient was referred to the Mayo Clinic with a diagnosis of papillomas of the larynx, the tumors were fulgurated and the patient dismissed. In 1926 the patient returned. Multiple papillomas of the larynx were again present with partial respiratory obstruction. These were removed and a tracheotomy done. The patient returned yearly and each time the papillomas were removed. In 1930 x-ray therapy was given with marked improvement. In 1931 and 1941 papillomas were removed from the trachea as well as the larynx. In 1943 papillomas were first noted in the right main bronchus and were removed. In 1948 an upper respiratory infection developed with cough and hemoptysis and lasted for 2 months. In January 1949 the patient noted a mass on the right side of his neck and in March returned to the Clinic. Examination revealed a superficial ulcerating lesion on the right border of the epiglottis and a fluctuant mass on the right side of the neck. X-ray examination revealed a pathologic process apparently in approximately the same position as the cavity which was first reported in 1941. Histologic study of the lesion of the larynx revealed squamous-cell epithelioma, grade 2. Examination of material aspirated from the mass in the neck did not reveal malignant cells. Radon seeds were inserted. By July 1949 the mass on the right side of the neck had decreased in size but a small nodule had developed in the right posterior cervical region. This was treated by x-ray. In January 1950 another nodule had appeared in the right anterior cervical region. X-ray examination of the thorax revealed an increase in the size of the lesion previously noted. Bronchoscopic examination was negative. On 7 February 1950 the lower lobe of the left lung was removed. The superior division of the bronchus to the left lower lobe showed a papillary,

squamous-cell epithelioma with cystic formation. The bronchus was almost completely obstructed before it opened into the cyst. The papillary projections in the bronchus were comparable to those previously removed from the larynx and trachea. The tumor mass had extended into an anomalous anterior branch of the superior division of the lower lobe bronchus causing bronchial obstruction and obstructive pneumonitis. This was comparable to the malignant component of the larynx. No lymph nodes involved by the tumor were found.

This case is considered of interest because of the rarity of simultaneous occurrence of such types of tumors, the prolonged course of the illness, and the methods used in treatment. The authors are of the opinion that the tumors represent tumors of multicentric origin and not metastatic tumors. (Proc. Staff Meet., Mayo Clin., 11 October '50, D. K. Buffmire et al.)

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Modern Therapy of Plague: On the basis of impressive experiences in the laboratory and in field trials, the following modern therapy is recommended in cases in which the presence of plague is suspected:

Streptomycin should be given in large doses (4 Gm.) at first, but for reasons of economy the dose may be reduced safely on the 3d or 4th day of recovery. After the 5th day, streptomycin may be replaced by sulfadiazine or sulfamerazine (4 Gm. daily). In severe septicemia, and particularly in pneumonic plague, the initial daily dose of 4 Gm. of streptomycin should be supplemented by oral administration of aureomycin, chloramphenicol, or terramycin (2 to 4 Gm.) and anti-plague immune serum globulin (rabbit) available at the National Institutes of Health. If the patient does not respond to streptomycin and sulfonamide treatment in 2 or 3 days, even when optimal and large initial doses have been given, the infecting strain may be resistant to these antibiotics. In such cases, chloramphenicol, aureomycin, terramycin, polymyxin B, or neomycin may prove beneficial.

When antibiotics are not available, sulfadiazine or sulfamerazine in an initial dose of 4 Gm., followed by 1 Gm. every 4 hours for not more than 10 days, has proved highly effective in the treatment of uncomplicated bubonic plague.

Contacts exposed to secondary or primary pneumonic plague should be given 2 or 3 Gm. of sulfadiazine or sulfamerazine daily for 5 days. With the onset of symptoms, intensive treatment with antibiotics must be instituted. (J.A.M.A., 18 November '50, K. F. Meyer)

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Lentigo Senilis: The term lentigo senilis implies the occurrence of lentigines or lentiginoid lesions in senile skin and is a suitable designation for the

peculiar pigmented macules occurring on the dorsa of the hands and commonly referred to by the laity as "liver spots." Little specific information is available about these banal lesions, and there are only vague and elusive references to them in the literature.

Senile lentigines seldom appear before the 4th or 5th decade of life, after which they slowly increase, both in size and number. They start as minute yellowish or light brown macules which enlarge peripherally, sometimes attaining the size of 1 cm. or more in diameter after several years, and are located most commonly on the dorsa of the hands and wrists, less frequently on the face and ankles. Their shape is usually irregular, and many such lesions remain discrete, although occasional confluence is noted. In color they vary from the tawny hue of early lesions to the dark brown or gray brown of older ones, and their number may be few or several dozen. Senile lentigines are common, occurring in approximately 25 to 30 percent of persons more than 50 years of age. Many very elderly patients are completely free of them, however. They are equally common in both sexes and occur in brunets as well as in those of light or sandy complexion. The lesions are asymptomatic, persist indefinitely and rarely undergo malignant change, so far as can be determined, despite a microscopic picture resembling that of xeroderma pigmentosum and simple lentigo in some respects. The specific etiology of senile lentigines is unknown, although they appear to be a manifestation of the cutaneous aging process, just as are some other pigmentary alterations, and their familial incidence is rather striking. Despite the lay term, "liver spots," and unlike simple lentigo, the lesions of lentigo senilis bear no relationship to the general health of the patient.

The lesions of lentigo senilis are differentiated from ephelides by their occurrence predominantly on the dorsa of the hands and wrists, the age of onset and depth of color, and by the fact that sunlight does not influence their development. From simple lentigines they are distinguished by their size, localized distribution, and age of onset. Seborrheic keratoses occur at the same sites as and intermixed with senile lentigines and may at times pose a problem in differential diagnosis. The former are usually elevated, though not to the same extent on the hands and wrists as elsewhere, probably because of continued friction at these sites. Also, seborrheic keratoses reveal a microscopic picture which differs considerably from that of lentigo senilis.

Inasmuch as the lesions of lentigo senilis are practically always benign, treatment is usually not necessary, except as a cosmetic procedure. Most patients want only to be assured that the lesions are not malignant. If treatment is carried out, electrodesiccation and curettage or surgical excision are the preferred methods of therapy. (Arch. Dermat. & Syph., November '50, E. P. Cawley and A. C. Curtis)

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Use of Cortisone and Adrenocorticotropic Hormone in Acute Disseminated Lupus Erythematosus: The authors have investigated the influence of cortisone and of pituitary adrenocorticotropic hormone (ACTH) on 34 patients with a variety of illnesses. Of this group 14 were critically ill with exacerbations of acute disseminated lupus erythematosus; 1 had chronic discoid lupus; 6 were patients with moderately severe hyperthyroidism, and the remaining 13 had various other collagen diseases. This report will be limited to their experience with acute disseminated lupus erythematosus.

The diagnosis of acute disseminated lupus erythematosus was based on the characteristic clinical association of fever, weakness, joint pains, typical lesions of skin and mucous membrane, evidence of pleuropericardical involvement, and retinal and renal changes. Several patients manifested severe muscle wasting. All patients demonstrated the characteristic laboratory findings, which included microscopic hematuria, leukopenia, anemia, hyperglobulinemia, elevated erythrocyte sedimentation rate, and the presence of characteristic lupus cells in both the heparinized bone marrow and the peripheral blood. Of the 14 patients treated, 11 were females ranging in age from 13 to 55 years and 3 were males ranging from 13 to 51 years of age.

The initial dosage of cortisone was 150 to 200 mg. daily and that of ACTH 100 to 150 mg. With both agents the daily amount was divided into 4 doses. After the disease was under control for several weeks the daily dosages were reduced every few days until the minimal dosage level was established which maintained the patient in remission. Further reduction usually resulted in a flare-up of the clinical manifestations of the disease.

The clinical results obtained in the treatment of acute disseminated lupus erythematosus with both cortisone and ACTH were striking. It must be emphasized, however, that although these agents are capable of inducing clinical remissions they do not effect a cure of the underlying disease process. The postmortem examination of 2 patients who had been treated intensively failed to show any histologic changes that were in any way different from those observed in patients with untreated lupus. Of the 14 patients reported on in this series, 11 responded well in that the acute manifestations of the disease promptly subsided and the patients became comfortably ambulatory. However, the characteristic lupus cells, the anemia, the thrombocytopenia and the abnormal renal findings persisted, and only infrequently did the sedimentation rate return to normal levels. In only 1 of the group could treatment be discontinued temporarily after 3 months of therapy. The remaining 10 patients still require continuous treatment after periods which vary from 1 to 7 months. Three patients in this series died. In 1, death occurred because of inadequate therapy, another because of repeated convulsions, and in the third as a result of an intercurrent infection.

It is perhaps too early to evaluate the ultimate results. The present indications are that in most instances treatment must be continued indefinitely or

until such time as a spontaneous remission occurs. Long term treatment poses the problem of coping with the side effects induced by both ACTH and cortisone. The more serious ones, such as edema and congestive heart failure, can be prevented to some degree by the rigid restriction of salt intake. A rapid gain in weight is an indication of fluid retention and should be countered with administration of mercurial diuretics. The subsequent alkalosis must be watched for and properly corrected. Convulsive seizures constitute an imposing problem. However, they have not prevented further treatment after a suitable period of rest and reduction in the dosage of the hormones. The convulsive episodes have occurred either relatively early in the course of therapy or not at all. Hirsutism, acne, rounding of the contours of the face, diffuse pigmentation and striae occur often and will persist only as long as treatment is continued. Diabetes occurs infrequently and is controlled with difficulty. The daily amount of insulin which is required for control of the diabetes bears a direct relationship to the dosage of hormone used.

It should be emphasized that the hazards encountered in the treatment of acute disseminated lupus with either cortisone or ACTH are perhaps greater than those observed when these agents are used in the therapy of other illnesses. This is probably due to the fact that disseminated lupus is a diffuse disease process which may seriously involve such vital organs as the heart, kidneys, and brain. (Arch. Int. Med., October '50, L. J. Soffer et al.)

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Investigating Shipboard Outbreaks of Dysentery: Recent outbreaks aboard two ships in the Pacific stress anew the old problem of what to do in shipboard outbreaks of dysentery and how to go about doing it. In World War II experiences, the extensive Leyte Gulf and Tokyo Bay occurrences revealed Shigella flexneri III and III(VIII) as the incitants. In other epidemics, Salmonella typhimurium was the most common among the 35 types determined.

Other causative agents which should be considered in proceeding to investigate are:

1. Paracolon group or the genus Pseudomonas
2. Enterotoxins preformed in food by
   a. Staphylococci, hemolytic, chromogenic
   b. Streptococci, beta-hemolytic and/or "greenproducers"
   c. Proteus group
   d. Clostridium perfringens
3. Chemical poisons
   a. Cadmium (in stainless steel or plated ware)
   b. Zinc (in galvanized ware dissolved by acid foods).

Prompt investigation by the Medical Officer and assistants is most important because: (1) The memory of the ordinary person for what has been eaten at certain meals is short and unless the inquiry is begun at once, the information obtained is likely to be faulty; (2) The chance is lost to get samples of suspected food if too much time elapses after the outbreak is underway; and (3) The earlier the investigation is completed, the quicker corrective action may be taken to prevent future similar occurrences.

Procedure for Investigation

1. Prepare a list of all cases and their clinical features: diarrhea; number of stools, watery, bloody, mucous, pus; nausea, vomiting and frequency; abdominal cramps; tenesmus; headache; fever, noting its maximum; number of days at sick call or on sick list; hour and date of first symptoms. Obtain an individual history of all patients, itemizing foods eaten in previous 3 days; associations prior to onset of symptoms; and presence of symptoms in prior attack or in carrier survey, recording essential relationships. Compare the histories of the cases to determine the food responsible for or suspected of causing the illness.

2. Meal analysis should be made on all others without apparent illness noting the foods eaten and not eaten for 3 days preceding the start of the outbreak. A summary tabulation of these data may give the first clues to the suspected foods, which may then be reviewed as to details of preparation, storage times, and temperatures.

3. Secure a list of food handlers to study the relations of each to the suspected food.

Food Implications

1. Shigellas - meats, salads, and ice cream contaminated by food-handler cases or carriers on board; convalescent carriers; cases transferred from a ship undergoing a current outbreak; and polluted seawater used aboard. In this type of outbreak, culture of overboard water alongside the ship is definitely indicated.

2. Salmonellas - turkey, chicken, salmon, and cheese.

3. Paracolons - frequently "left-overs" of mixed dishes such as corn chowder, croquettes, hash; milk, cottage cheese, and ice cream. This and the two foregoing have an average 10 to 18 hour incubation period after ingestion.

4. Staphylococci, Streptococci, Proteus - ham, eggs, corn, ice cream, cream puffs, and custard-filled pastries contaminated by food-handlers having an upper respiratory infection or sores on hands and forearms or transmitting proteus in association with poor bowel hygiene. Clostridium perfringens is reported

after eating canned chicken and presumably could be carried by other meats. This enterotoxin group has an incubation period of 2 to 3 hours.

Sanitary Survey

This includes inspection of food handlers for any of the above contaminating sources, food-handling procedures, and food preparation; storage and refrigeration; milk and ice cream equipment; sculleries and garbage disposal; heads and showers; water supply; lighting; and ventilation in relation to galley and scullery cleanliness.

Investigation Report

A Special Epidemiologic Report should be sent to the Bureau of Medicine and Surgery by the Medical Officer when he has carried his investigation as far as he can. A copy of this report, a set of Individual Case Report copies, a summary sheet of meal analysis, the findings of Sanitary Survey, an evaluation of control measures used, and any representative cultures should be sent to the Commanding Officer, Naval Medical Research Institute, Bethesda 14, Maryland. These cultures may evolve by calling upon the assistance of other ships, a hospital ship in the area, the Army 406 General Laboratory, Tokyo, Naval Hospital, Yokosuka, or Epidemic Disease Control Unit, San Diego, California. Packages should be labeled "Bacteriologic Specimen" and the contents should include full identification by named source, mode of collection, and culture number of same identity as on individual case report. (Preventive Med. Div., BuMed)

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NOTICE

Now Hear This: It is brought to the attention of all interested personnel that Volume 16 of the Medical News Letter consists of only 11 issues. (Editor)

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From the Note Book

1. The Color Atlas of Pathology, the Navy's most recent contribution to science and the first such comprehensive publication of its kind in the world was published this month by the J. B. Lippincott Co., Phildelphia, Pa. The Atlas has required 6 years for completion. It will provide a usable and intelligible standard of comparison as a guide to the study and interpretation of both gross and microscopic findings in pathology. (PIO, BuMed)

2. It is estimated that 40,000 cases of cancer will be located in the last 8 inches of the lower bowel out of 101,000 new cases of cancer developing in 1950. Also, some 38,000 cases of cancer of the stomach will develop. (Science News Letter, 4 November '50)

3. The Sir Henry Wellcome Award and Medal for 1950 went to Major H. I. Chinn, MSC, USAF Reserve, for an essay entitled "Motion Sickness in the Military Service." The 2d place award, carrying a life membership in the Association of Military Surgeons went to Captain J. H. Korb, MC, USN, for an essay entitled "Infected Pilonidal Cysts. A Simplified Method of Treatment." (Mil. Surgeon, November '50)

4. Rear Admiral A. W. Chandler, DC, USN, was elected 2d Vice President of the American Dental Association at the annual meeting, 30 October to 2 November 1950, at Atlantic City. At the same meeting, the Navy Dental Corps exhibit was awarded the Certificate of Honor for having won first prize in the Scientific Exhibit Section out of a total of 40 entries. (PIO, BuMed)

5. The November 1950 issue of Naval Training Bulletin contains information on "How Reserve Officers are Promoted" by LCDR J. A. Umhoefer, USNR.

6. "Researches on the Radiotherapy of Oral Cancer" are discussed comprehensively in a report issued by the Medical Research Council of Great Britain in June 1950.

7. November 1850. - "A new invention by a Mr. Jordan of Liverpool, proposing to substitute iron for the wooden framing of vessels, is attracting a good deal of attention in that city. The inventor has taken out an American patent." (Scientific American, November '50)

8. The obstetrical significance of prematurity is discussed in the October 1950 Journal of Pediatrics by D. G. Morton.

9. The Children's Hospital of Boston recently issued a small booklet, "Accident Handbook" for use in the home. Accidents to children occurring in the home were treated so frequently by the hospital and so many instances of wrong

treatments or improper care were observed that the hospital decided something should be done to prevent such mistreatments. Eight common accidents to children are discussed: head injuries, burns, poisons, cuts, fractures, bites, convulsions, and foreign bodies. Each subject covers 2 pages; one page furnishes brief instructions on "What to Do," and on the opposite page are items of "What Not to Do." (Editorial, J.A.M.A., 18 November '50)

10. From 40,000 to 60,000 persons in the United States and countless others in Europe, Africa, and many parts of the Orient are afflicted with brucellosis. (Science News Letter, 18 November '50)

11. The Fourth General Assembly of the World Medical Association was held in New York City from 16 October to 20 October 1950. Dr. E. L. Henderson of the United States was installed as president. Representatives were present from 29 of the 39 member nations. (Organization Section, J.A.M.A., 18 November '50)

12. An interesting article on sectioning of tissue for electron microscopy appears in the 3 November 1950 issue of Science by J. Hillier and M. E. Gettner.

13. Lightweight ophthalmic lenses made from new transparent plastics having outstanding qualities of resistance to abrasion, chemicals, fogging, and physical impact are now being produced. (J. Ophth., November '50, M. W. Nugent and R. Graham)

14. "The Current Status of Therapy in Leprosy" is discussed in the 18 November 1950 J. A. M. A. by F. A. Johansen and P. T. Erickson.

15. "Graduated Thermal Burns in Man" is discussed in the November 1950 issue of Plastic and Reconstructive Surgery by M. A. Entin and H. Baxter.

16. The effects of dramamine upon cochlear function and the vestibular responses to turning in normal subjects appear in the September 1950 Annals of Otology, Rhinology and Laryngology. (J. Winston et al.)

17. A course in the medical aspects of special weapons and radioactive isotopes for Reserve medical and dental officers was conducted at the Naval Medical School, National Naval Medical Center, Bethesda, Maryland, from 27 November to 1 December 1950.

18. A 2-stage fibular transplant for persistent nonunion and with gross loss of the tibia is reported in the November 1950 Military Surgeon. (Col. K. Dunlap and Capt. E. F. Wierzalis)

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Officers' Basic Course in Naval Medicine: The Bureau of Medicine and Surgery is now accepting applications from medical officers on active duty in the Navy or Naval Reserve for the Officers' Basic Course in Naval Medicine to be given at the U. S. Naval Medical School, National Naval Medical Center, Bethesda, Maryland, from 15 January through 30 June 1951. This course has been designed to provide the young medical officer with a broad background in those phases of naval medicine that are so essential to a successful career in the Navy.

The course will include instruction in Medical Department organization and duties; customs; ethics; preventive and industrial medicine; amphibious, aviation, submarine, field, and shipboard medicine; physical and rehabilitative medicine; emergency care of casualties and their transportation; general medical and surgical subjects; clinical, pathological conferences; and library periods.

Requests for assignment to this course should be submitted to the Chief of the Bureau of Medicine and Surgery. Since the course is basic to a career in Naval medicine, applications by regular Navy medical officers will take priority over those of reserve officers in filling the class quota. Assignment to the course represents permanent change of duty orders. (Professional Div., BuMed)

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Course in Aviation Medicine: The Bureau of Medicine and Surgery announces that the next class in aviation medicine, for which applications are being considered, will convene at the U. S. Naval School of Aviation Medicine, Pensacola, Florida, on 20 February 1951. The course is approximately of 6 months' duration.

The class will be limited to 30 students and is open to medical officers of the Regular Navy and Reserves, of the rank of Lieutenant Commander and below. An agreement to remain on active duty for one year after completion of the course must be included with each application.

There is an urgent need for flight surgeons in the now expanding air arm of the United States Navy and all eligible medical officers are requested to consider this field of medicine as a specialty for their naval career. Aviation medicine offers diversified opportunities for naval medical experience. Duties with aviation units afford general medical experience, in addition to certain special opportunities for experience in otolaryngology, ophthalmology, physiology, psychiatry, and research.

Medical officers interested in applying for this course in aviation medicine, leading to the designation of U. S. Naval Flight Surgeon, should do so as soon as possible in order that their request will reach the Bureau of Medicine and Surgery prior to 10 January 1951. (AvMed. Div., BuMed)

Postgraduate Course in Diseases of the Chest: The Council on Postgraduate Medical Education of the American College of Chest Physicians has announced that a postgraduate course in diseases of the chest will be given at the Vanderbilt University School of Medicine, Nashville, Tennessee, 22-27 January 1951, under the joint sponsorship of the Council and the Southern Chapter of the American College of Chest Physicians.

Medical officers desiring to attend the course should submit requests to the Bureau of Medicine and Surgery without delay. Authorization orders ONLY will be provided for those officers approved to attend the course. The $50.00 tuition cost will be borne by BuMed. (Professional Div., BuMed)

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List of Recent Reports Issued by Naval Medical Research Activities:

Naval Medical Research Institute, NNMC, Bethesda, Maryland.

The Preservation of Arterial Segments by the Freeze-Drying Method, NM 007 081.10.02, 19 June 1950.

Sulfhydryl-Containing Agents and the Effects of Ionizing Radiations. III. Studies on the mechanism of the protective action of glutathione, NM 006 012. 05.02, 27 June 1950.

Experimental Procedures for the Simultaneous Exposure of Large Numbers of Animals to Total Body X-Radiation, NM 006 012.05.03, 3 July 1950.

Naval Medical Research Unit No. 4, ADCOM, USNTC, Great Lakes, Illinois.

Rheumatic Fever in the Navy, NM 005 051.04.03 (formerly NM 007 029), 1 November 1950.

The Effect of Splenectomy upon Serum and Tissue Antibody Formation, NM 005 051.06.01, 8 November 1950.

Medical Research Laboratory, U. S. Naval Submarine Base, New London, Conn.

The Discrimination of Color. I. An Experimental Evaluation of Four Methods for Measuring the Difference Limen of Chromaticity, NM 003 041.19.01, 15 September 1950.

Note: Those interested in seeing copies of the complete reports should address their request to the research activity from which the report originated.

ALNAV 135 21 November 1950

Subj: Medical Officers Professional Training Record, DD Form 408,

AlNav 135. Basegram. BuMed is currently distributing Medical Officers Professional Training Record, DD Form 408. Form provides means of recording adequate and authentic data for committees on eligibility of the American Specialty Boards for evaluation of experience acquired by medical officers while serving with Armed Forces. Form is not required by all medical officers. Distribution will be made without request to those USN medical officers who have completed some portion of training toward certification by an American Specialty Board. USNR medical officers concerned should submit letter request for form to Professional Division, BuMed.

-Dan A. Kimball

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ALNAV 138 22 November 1950

Subj: Form NavPers 340 for Reserve Officers: Submission of

AlNav 138. All Reserve Officers recalled active duty subsequent 1 July 1950 directed immediately comply Article B-2205, BuPers Manual. Submission Form NavPers 340 imperative in determining status above officers. Attention all commands invited to Article C-5407(4), BuPers Cir. Ltr. 131-50 for compliance.

-Dan A. Kimball

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BUMED CIRCULAR LETTER 50-127 20 November 1950

From: Chief, Bureau of Medicine and Surgery
To: All Holders of the Bulletin of Bureau of Medicine and Surgery Circular Letters

Subj: BuMed Circular Letters: Cancellation of

1. The following BuMed circular letters are hereby cancelled for the reasons indicated:

Letter No.	Subject	Reason for Cancellation
45-177	Contact lenses for Navy and Marine Corps personnel	Served its purpose.

Letter No.	Subject	Reason for Cancellation
47-18	Return to United States of World War II dead from overseas cemeteries	Served its purpose.
48-9	Nursing service in the Navy	Served its purpose. Art. 8-14, ManMedDept, covers duties of Nurse Corps officers.
48-23	Naval Medical Supply Depot, Pearl Harbor, T. H.; mission of	Depot in inactive status.
48-28	Implementation by BuMed of Navy Department policy covering provision of eye protection and eye correction for Naval Shore Establishment employees	Served its purpose. NCPI-190 covers.
48-113	List of Regional Medical Directors, Public Health Service, Federal Security Agency	Later coverage by BuMed Cir Ltr No. 50-82.
48-122	Venereal disease contact investigation, request for training of interviewers	Served its purpose.
48-132	Wilmot Castle Overhead Operating Light, installation check of	Served its purpose.
48-136	Naval Medical Supply Depot, Pearl Harbor, T. H.; mission of	Same as 48-23.
50-7	Fiscal reports relating to civilian personnel; transfer of	Served its purpose.

-H. L. Pugh, Acting

The above letter will not be printed in the Navy Department Bulletin.

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BUMED CIRCULAR LETTER 50-128 27 November 1950

From: Chief, Bureau of Medicine and Surgery
To: BuMed Management Control Activities as indicated

Subj: Civilian Personnel Services Work Measurement Program; NAVEXOS-3211, Civilian Personnel Office Workload and Staffing Report (Report Symbol-NDEX-1)

Ref: (a) CPL&D 50-29 of 2 March 1950
(b) CPL&D 50-167 of 18 October 1950

Encl: (1) Definitions and Reporting Instructions for the Civilian Personnel Office Workload and Staffing Report
(2) Twenty (20) copies of NAVEXOS-3211, Civilian Personnel Office Workload and Staffing Report

1. The Civilian Personnel Office Workload and Staffing Report inaugurated by reference (a) was cancelled by reference (b). Reference (b) also informed activities that instructions for a revised Civilian Personnel Services Work Measurement Program would be promulgated by the management control bureau.

2. Revised definitions and instructions for the guidance of Medical Department field activities in accumulating civilian personnel services workload and staffing data, and in preparing quarterly reports on NAVEXOS-3211 are contained in enclosure (1). These revised definitions and instructions are effective as of 1 October 1950. The reports will be submitted to the Bureau and not to the Office of Industrial Relations as was formerly the case.

3. The first report required by the Bureau under this revised Civilian Personnel Services Work Measurement Program is for the quarter ending 31 December 1950, and shall be forwarded in duplicate to reach the Bureau not later than 10 January 1951. The reports for succeeding quarters (ending 31 March, 30 June and 30 September) shall be submitted in duplicate to reach the Bureau within ten (10) days after the end of the quarter being reported, in order that the Bureau may be able to meet deadlines for submitting consolidated reports to the Office of Industrial Relations.

4. A review of the revised definitions and NAVEXOS-3211, Civilian Personnel Office Workload and Staffing Report, will reveal that there are some items listed therein for which no reporting will be required on the part of Medical Department activities. For example, there are no Medical Department field activities administratively responsible for a Board of Civil Service Examiners at the present time. Therefore, among the items for which no report is required are: Item 13, Ratings Issued and SF-62's Audited by Board of Civil Service Examiners; Item

14, Certifications Issued by the Board of Civil Service Examiners; Item 23, Board of Civil Service Examiners; and Item 30, Data to be Furnished by Boards of Civil Service Examiners Serving More Than One Activity. Similarly, Medical Department field activities are not required to report under Item 7, Classification Act Positions Analyzed Individually; and Item 9, Positions Analyzed on Survey.

5. The supply of report forms forwarded herewith as enclosure (2) is considered sufficient for the current fiscal year. Requests for an additional supply, if needed, should be made to the Bureau by letter.

6. The data accumulated from field activities' submissions on NAVEXOS-3211, Civilian Personnel Office Workload and Staffing Report, will be reviewed and evaluated by the Bureau of the Budget and by Congressional Appropriations Committees when annual budget estimates are considered, and allowances for staffing civilian personnel offices are based on these analyses. Therefore, it is important that the reports submitted under the Civilian Personnel Services Work Measurement Program be accurate.

7. It is expected that this work measurement program will prove useful in pointing out areas in need of work simplification or other improvements aimed at increasing operating effectiveness. In addition, it should provide a useful guide for evaluating the effectiveness of newly installed procedures. The Civilian Personnel Services Work Measurement Program should prove useful to field activities in scheduling the use of manpower and facilities and in making determinations, evaluations and justifications for staffing Civilian Personnel Offices.

-C. A. Swanson

The above letter will not be printed in the Navy Department Bulletin.

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BUMED CIRCULAR LETTER 50-129 28 November 1950

From: Chief, Bureau of Medicine and Surgery
To: Holders of the Bureau of Medicine and Surgery Circular Letters

Subj: Hospitalization of Army and Air Force Personnel on Active Duty

Ref: (a) Par. 4142, MMD, 1945
(b) Par. 4143, MMD, 1945

1. References (a) and (b) are hereby modified to the extent that written requests for hospitalization of subject personnel are no longer required.

2. An appropriate change will be made in the instructions contained in the forthcoming Chapter 21, Manual of the Medical Department, USN (replacing the present Part IV, Chapter 1, MMD, 1945).

-C. A. Swanson

The above letter will not be printed in the Navy Department Bulletin.

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BUMED CIRCULAR LETTER 50-130 28 November 1950

From: Chief, Bureau of Medicine and Surgery
To: All Ships and Stations

Subj: Sanitary Reports for Calendar Year 1950

Ref: (a) BuMed Circ. Ltr. No. 49-148; NDB Jul-Dec 1949, 49-812, P122
(b) Par. 35D1 Man.Med.Dept.
(c) SecNav ltr. BuMed-7221 P11-1/J25 of 11 Jan 1950 (encl. (1) to ref. (d))
(d) BuMed Circ. Ltr. No. 50-13 to COMDT MARCORPS; CNAT; COMDT NDs, RCs

Encl: (1) Sample of form to be used for reporting status of Food Handlers' Training

This circular letter indicates that a considerable number of sanitary reports for the past calendar year did not serve the purpose as outlined in reference (a). Certain deficiencies are outlined. Attention is invited to paragraphs 3b and 4b of enclosure A to reference (a) which outlines the purposes of sanitary reports. The letter also directs that the Status of Food Handlers' Training, required by references (c) and (d) shall be submitted as an enclosure to the sanitary report. A sample of the form to be used is enclosed with the letter as enclosure (1).

This letter and enclosure was published in the 30 November 1950 Navy Department Bulletin.

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BUMED CIRCULAR LETTER 50-131 1 December 1950

From: Chief, Bureau of Medicine and Surgery
To: All Ships and Stations

Subj: Deceased MSTS Personnel; Care of the Remains of

Ref: (a) Part III, Chapter IV, Manual Medical Department, 1945
(b) Act of 8 July 1940 (Public Law No. 729 - 76th Congress)

1. As the result of an agreement between the Bureau of Medicine and Surgery and the Commander, Military Sea Transportation Service, the Medical Department of the Navy has assumed responsibility for the care and disposition of the remains of deceased civilian MSTS personnel on a reimbursable basis.

2. In cases involving the death of a member of the Navy or Marine Corps on board a MSTS vessel, appropriate instructions contained in the Bureau of Naval Personnel Manual, Manual of the Medical Department, and Marine Corps Manual should be followed. In cases involving civilian marine employees of MSTS, instructions contained in paragraphs 4129 and 4130, Manual of the Medical Department, 1945, and Civilian Marine Personnel Instructions (Interim) 21 shall be followed. Civilian Marine Personnel Instructions (Interim) 21 is based upon and in consonance with paragraphs 4129 and 4130, Manual of the Medical Department, 1945.

3. Inasmuch as all services for civilian crew members of MSTS will be provided by the Medical Department of the Navy on a reimbursable basis, all expenditures from Medical Department funds in these cases should be reported to the Bureau of Medicine and Surgery on NavMed-609. In addition, all claims for the secondary burial allowance should be processed through the Bureau of Medicine and Surgery in the same manner as in cases involving active duty naval personnel.

4. Revised instructions concerning the handling of deceased MSTS personnel will be promulgated in the very near future by both this Bureau and the Commander, MSTS.

-C. A. Swanson

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ALNAV 141 27 November 1950

Subj: Transfer of Combat Evacuee Patients

AlNav 141. Basegram. Pending reissue BuMed Clr. Ltr. 47-17 (NDB 47-110) is hereby modified. Combat evacuee patients, Navy and MarCorps personnel, after arrival CLUSA NavHosp may be further transferred at government expense to NavHosp nearest home provided hospitalization of 30 days or more is required and such trans not otherwise contraindicated. Patients who require definitive or specialized treatment not available at navhosp nearest home will not be considered for trans under this auth. Requests should be forwarded to BuMed or Comdt Nav Dist as appropriate in accord existing instructions re

trans pts between navhosps. Such transfers are considered as for medical reasons. All orders issued to MarCorps personnel both officer and enlisted and orders issued to Naval officers and all medical attendants will include statement "Expense transportation chargeable to appropriation medical care, Navy, 1951, symbol 1711002.11, program allotment 16000, object class 022 officers, 023 enlisted, expenditure account 45802". All orders issued to Naval enlisted personnel will include statement "Expense transportation chargeable to appropriation military personnel, Navy, 1951, symbol 1711453.18, object class 029, applicable expenditure account as listed in paragraph 4, AlNav 53".

Refer NDB 50-798. Govt air will be utilized where available in accord NDB-50-363. Copies of orders issued to MarCorps personnel will be forwarded as necessary to administrative command carrying service record in order to effect trans to nearest MarCorps activity destination navhosp. Forward copy of all orders issued patients to Comdt MarCorps or BuPers as appropriate and copies of all orders issued to patients and attendants to BuMed.

-Dan A. Kimball

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NAVY DEPARTMENT
BUREAU OF MEDICINE AND SURGERY
WASHINGTON 25, D. C.

OFFICIAL BUSINESS

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